

Specifications:

| | PS-15/PS-15M | PS-30/PS-30M |
|------------------------------|--------------|--------------|
| Nominal Battery Voltage | 12/24 V | 12/24 V |
| Max. PV Open-Circuit Voltage | 30/60 V | 30/60 V |
| Maximum Input Current | 15 A | 30 A |
| Rated Load Current | 15 A | 30 A |



Warning: Shock Hazard

Test between all terminals and ground before touching.

Power or accessory terminals are **NOT** electrically isolated from DC input and **may be energized with hazardous solar voltage.**



World's Leading Solar Controllers & Inverters



ProStar™

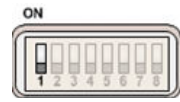
Solar Charging System Controller

Quick Start Guide

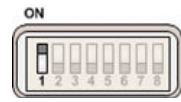
Operational Configuration:

Switch 1: Load/Lighting

| Mode | Switch 1 |
|----------|----------|
| Normal | OFF |
| Lighting | ON |



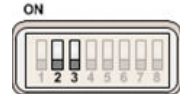
Normal



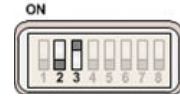
Lighting

Switches 2 & 3: System Voltage

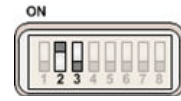
| System Voltage | Switch 2 | Switch 3 |
|----------------|----------|----------|
| Auto | OFF | OFF |
| 12 | OFF | ON |
| 24 | ON | OFF |



AUTO



12 V

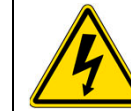


24 V



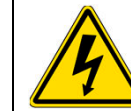
Metered version shown.

Safety Information:



Warning: Shock Hazard

The ProStar Gen3 controller must be installed by a qualified technician in accordance with the electrical regulations of the country of installation.



Warning: Shock Hazard

This unit is not provided with a GFDI device. This charge controller must be used with an external GFDI device as required by the Article 690 of the National Electrical Code for the installation location.



IMPORTANT: READ the ProStar Gen 3 Installation Manual for safety and regulatory information, instructions on configuration and operation, and warranty information.

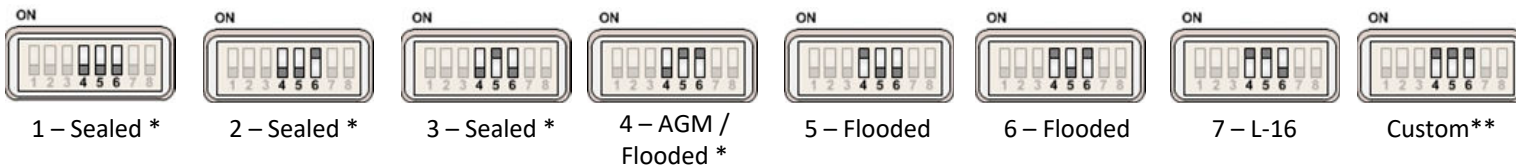
Switches 4, 5, & 6: Battery Type Selection

NOTE: The ProStar Gen3 can be programmed to accommodate a wide range of charging parameters. Consult the battery manufacturer for optimal battery charging settings.

To Change Settings:

- On metered models, use the interface on the meter or use the software available at <https://www.morningstarcorp.com/msview/>.
- On non-metered models, use the software available at <https://www.morningstarcorp.com/msview/>.

See the ProStar Installation, Operations, and Maintenance Manual for additional information/guidance.



| DIP Switch Setting | | | Battery Type | Absorption Stage (Volts) | Float Stage (Volts) | Equalize Stage (Volts) | Absorption Time (Minutes) | Equalize Time (Minutes) | Equalize Timeout (Minutes) | Equalize Interval (days) | LVD (Volts) | LVR (Volts) |
|--------------------|-----|-----|------------------|--------------------------|---------------------|------------------------|---------------------------|-------------------------|----------------------------|--------------------------|-------------|-------------|
| 4 | 5 | 6 | | | | | | | | | | |
| OFF | OFF | OFF | 1 – Sealed* | 14.00 | 13.50 | --- | 150 | --- | --- | --- | 11.5 | 12.6 |
| OFF | OFF | ON | 2 – Sealed* | 14.15 | 13.50 | 14.40 | 150 | 60 | 120 | 28 | 11.5 | 12.6 |
| OFF | ON | OFF | 3 – Sealed* | 14.30 | 13.50 | 14.60 | 150 | 60 | 120 | 28 | 11.5 | 12.6 |
| OFF | ON | ON | 4 – AGM/Flooded* | 14.40 | 13.50 | 15.10 | 180 | 120 | 180 | 28 | 11.5 | 12.6 |
| ON | OFF | OFF | 5 – Flooded | 14.60 | 13.50 | 15.30 | 180 | 120 | 180 | 28 | 11.5 | 12.6 |
| ON | OFF | ON | 6 – Flooded | 14.70 | 13.50 | 15.40 | 180 | 180 | 240 | 28 | 11.5 | 12.6 |
| ON | ON | OFF | 7 – L-16 | 15.40 | 13.40 | 16.00 | 180 | 180 | 240 | 14 | 11.5 | 12.6 |
| ON | ON | ON | 8 – Custom** | Custom | Custom | Custom | Custom | Custom | Custom | Custom | Custom | Custom |

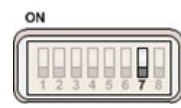
**"Sealed" battery types include Gel and AGM Batteries

**Lithium-ion and some other battery types require custom programming. Morningstar provides downloadable settings for selected battery manufacturers here: <https://www.morningstarcorp.com/energy-storage-partner-program/>

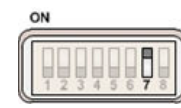
| Shared Settings | | Set Point | | Shared Settings | | Set Point | |
|------------------------------|--|-----------------------------|--|---------------------------------------|--|--------------------------------|--|
| Absorption Extension Voltage | | 12.50 Volts | | Float Cancel Voltage | | 12.10 Volts | |
| Absorption Extension Time | | Absorption Time +30 minutes | | Equalize Time-Out | | Equalize Time +60 minutes | |
| Float Exit Time-Out | | 30 minutes | | Temperature Compensation Co-Efficient | | -30 millivolts / °C / 12 Volts | |

Switch 7: Battery Equalization

| Mode | Switch 7 |
|---------------------|----------|
| Manual Equalization | OFF |
| Auto-Equalization | ON |



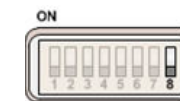
Manual EQ



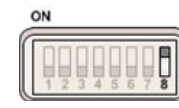
Auto EQ

Switch 8: Current Switching

| Mode | Switch 8 |
|----------------|----------|
| PWM Switching | OFF |
| Slow Switching | ON |



PWM Switching



Slow Switching

Contact Information:

Technical Support: Support.morningstarcorp.com
Phone: 1-215-321-4457



Scan QR Code to go directly to the ProStar Gen3 Installation Manual and warranty information online.



Warranty Registration: <https://www.morningstarcorp.com/product-registration/>

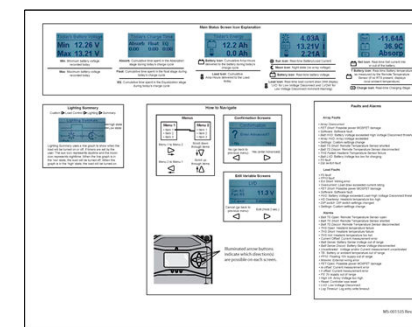
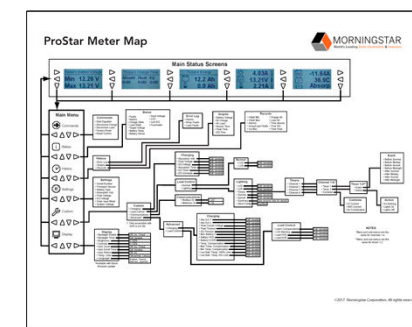
In the box:



ProStar Charge Controller



Self-Tapping Mounting Screws (x4)



Menu Map (2 pages)

Optional Accessories



Remote Meter (RM-1)



PV Ground Fault Protection (GFPD-150V)



Remote Temperature Sensor (RTS)



Ethernet MeterBus Converter (EMC-1)



USB Communications Adapter (UMC-1)



PC MeterBus Adapter (MSC)

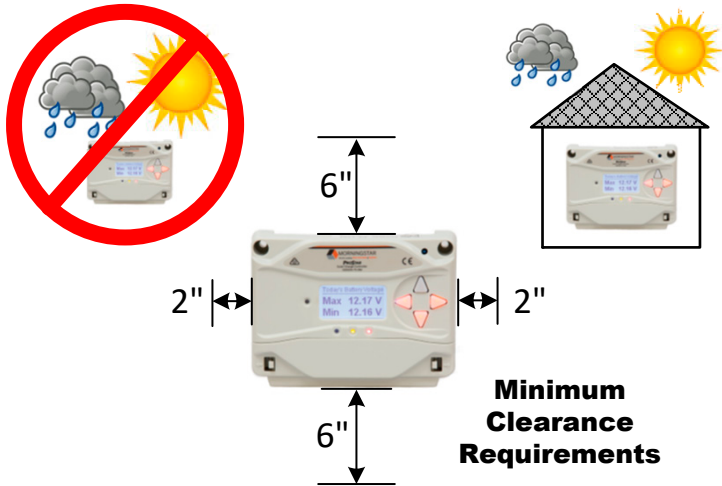
Tools Required:

- #2 Philips Screwdriver
- 3/16 (5 mm) & 3/32" (2.5 mm) Flathead Screwdriver



Caution: Equipment Damage

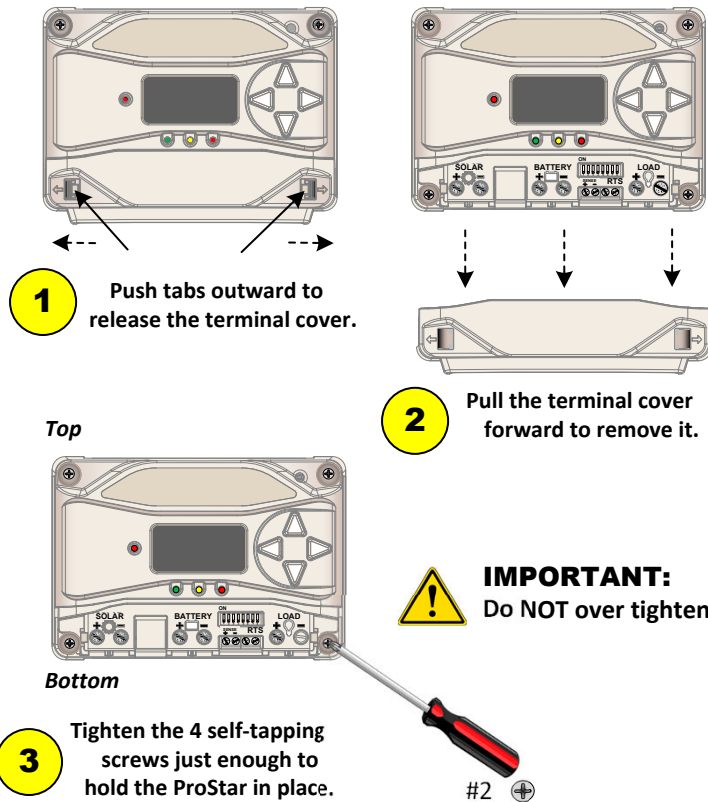
Do not expose the ProStar CC to weather. Locate in a dry, protected area to prevent equipment damage. Ensure the minimum clearance requirements are followed to provide adequate ventilation and prevent the unit from overheating.



Mounting:

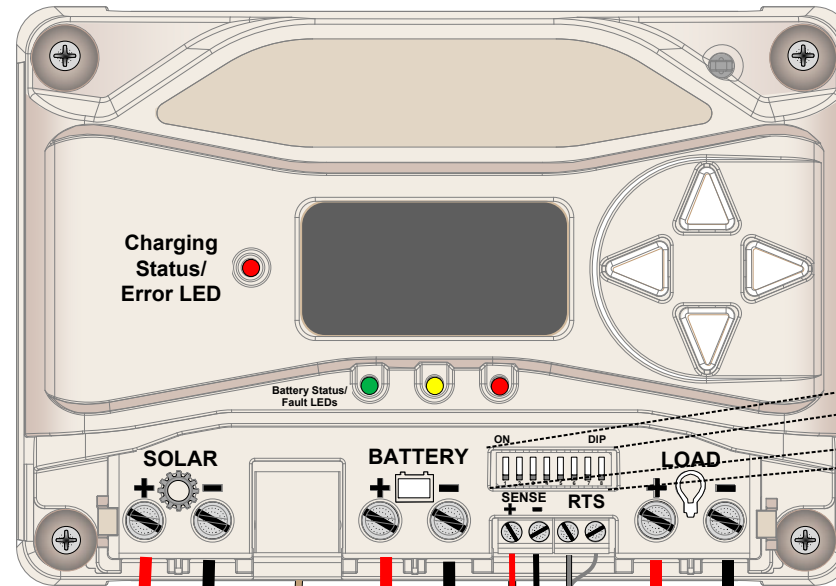
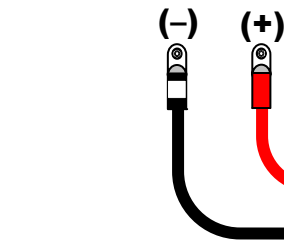
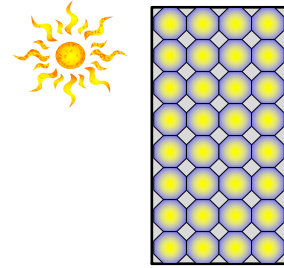


IMPORTANT: Mount in the orientation shown here with the heat sink fins vertical.



Photovoltaic (PV) Array

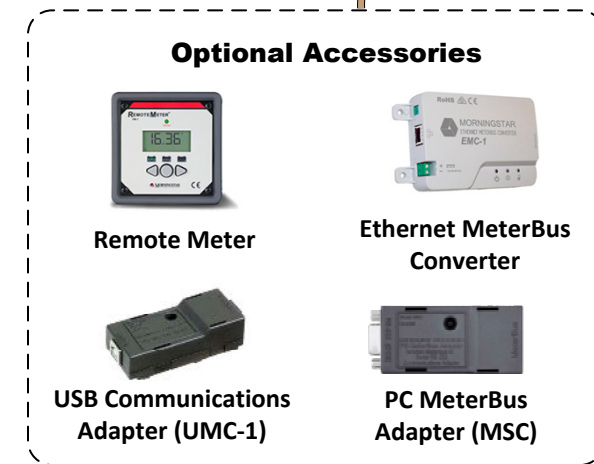
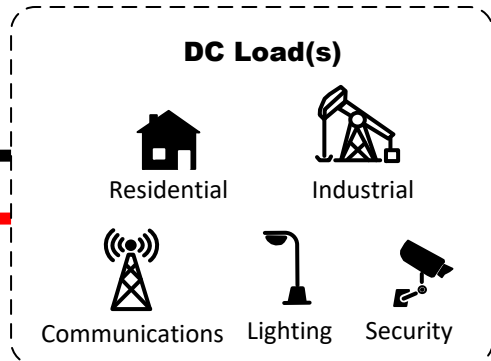
See the Morningstar PV String Calculator at: <http://string-calculator.morningstarcorp.com/>



DIP Switch Block (enlarged)
(See Page 4 for settings)

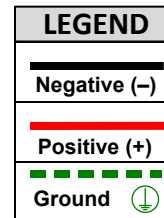


LED Indicators:
See the ProStar Gen3 Installation Manual for details.



| Wiring and Torque Requirements | | | |
|--------------------------------|---|-------------------------------------|---------------------|
| Component | Wire Size | Tool Required | Torque (Max) |
| Power Terminals | 2.5 - 16 mm ² / #14 - 6 AWG | 3/16" (5 mm) Flathead Screwdriver | 35 in-lbs. (3.9 Nm) |
| Battery Voltage Sense | 0.25 - 1.0 mm ² / #24 - 16 AWG | 3/32" (2.5 mm) Flathead Screwdriver | 5 in-lbs. (0.56 Nm) |
| Remote Temperature Sensor | (included) | 3/32" (2.5 mm) Flathead Screwdriver | 5 in-lbs. (0.56 Nm) |
| Mounting Screws | --- | #2 Phillips Screwdriver | 5 in-lbs. (0.56 Nm) |

*Fuse or breaker sizing based on required wire ampacity



Power UP Sequence:

1. Connect Battery/Battery Bank.
2. Connect Solar.

Power DOWN Sequence:

1. Disconnect Solar.
2. Disconnect Battery/Battery Bank.



IMPORTANT: Ensure there is **only 1** DC Negative-to-Ground Bond in the entire system.